

Rec'd PCT/TO 16 DEC 2004

518,093

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
31 December 2003 (31.12.2003)

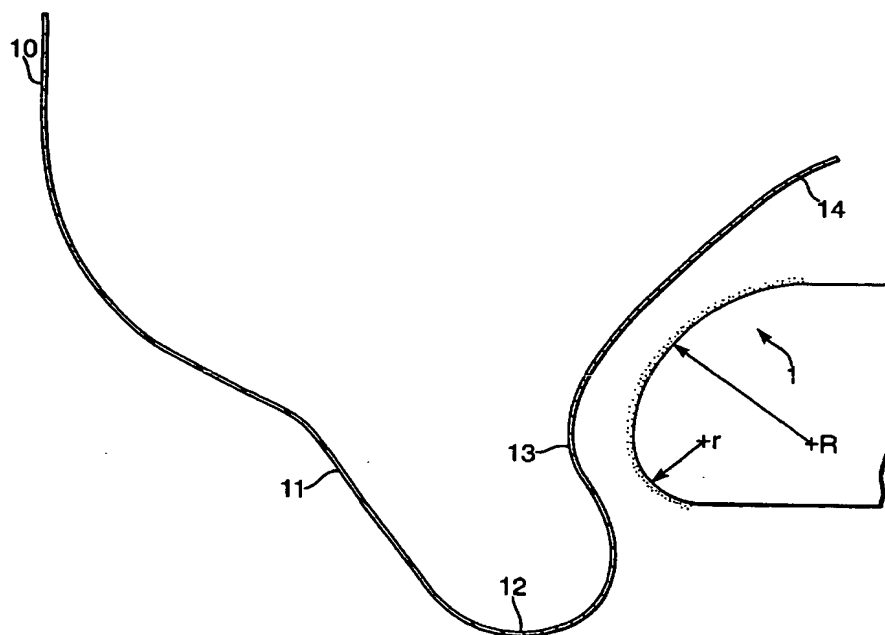
PCT

(10) International Publication Number
WO 2004/000481 A1

- (51) International Patent Classification⁷: **B21D 51/26**
- (21) International Application Number:
PCT/EP2003/006239
- (22) International Filing Date: 13 June 2003 (13.06.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
02254347.4 21 June 2002 (21.06.2002) EP
- (71) Applicant (for all designated States except LS, US):
CROWN CORK & SEAL TECHNOLOGIES CORPORATION [US/US]; 11535 S. Central Avenue, Alsip, IL 60803-2599 (US).
- (71) Applicant (for LS only): **CARNAUDMETALBOX PLC** [GB/GB]; Downsview Road, Wantage, Oxfordshire OX12 9BP (GB).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **CLAYDON, Paul, Charles** [GB/GB]; 35 Elizabeth Drive, Wantage, Oxfordshire OX12 9YA (GB).
- (74) Agent: **RATLIFF, Ismay, Hilary**; Group Intellectual Property, CarnaudMetalbox plc, Downsview Road, Wantage, Oxfordshire OX12 9BP (GB).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,

[Continued on next page]

(54) Title: REFORM ROLLERS



(57) Abstract: Reform rollers for use in internal or external base reforming of can bodies have a textured surface which control the depth of the dome of the can base and provide greater process stability than is achieved with known smooth rollers. One example of textured surface finish provided by spark erosion has been shown to have much greater consistency of dome reversal pressure, dome growth and dome depth.

WO 2004/000481 A1